AMENDMENTS TO THE SPECIFICATION

Kindly add the following cross-references to related applications at the beginning of the specification:

CROSS-REFERENCES TO RELATED APPLICATIONS

This application is a continuation of US Patent Application 09/944,913, filed August 31, 2001, entitled, "Treatment of disorders by unidirectional nerve stimulation," which issued as US Patent 6,684,105.

Kindly amend the second through fourth paragraphs on page 6 of the specification to read as follows:

"A Nerve Cuff Design for the Selective Activation and Blocking of Myelinated Nerve Fibers," D.M. Fitzpatrick et al., Ann. Conf. of the IEEE Eng. in Medicine and Biology Soc., Vol. 13, No. 2, pp. 906, 1991. The authors describe the use of a tripolar cuff electrode for generating unidirectional action potentials in nerve fibers according to their size, and conclude, "The results show that a tripolar cuff electrode can generate unidirectional action potentials in the small nerve fibres whilst blocking the large fibres. Changing the ratio of the anodal currents results in the gradual recruitment of the large fibres" (p. 907).

"Acute Animal Studies on the Use of Anodal Block to Reduce Urethral Resistance in Sacral Root Stimulation," N.J.M. Rijkhof et al., IEEE Transactions on Rehabilitation Engineering, Vol. 2, No. 2, pp. 92, 1994. The authors describe experiments in which, using a tripolar electrode configuration and monophasic rectangular current pulses in acute canine experiments, a reduction of intraurethral pressure response, as compared to stimulation without blocking, of more than 80% was achieved. The authors write, "Our research is focused on selective activation of small nerve fibers in sacral roots by a combination of cathodal excitation of all fibers and a selective anodal block [1], [6]-[8] of the large fibers. . . . Since large diameter fibers need less current for their blocking than small ones [1], selective activation of small fibers

is possible by blocking, distal to the excitation site (cathode), the propagation of the induced action potentials in the large fibers" (p. 92).

"Orderly Recruitment of Motoneurons in an Acute Rabbit Model," N.J.M. Rijkhoff et al., Ann. Conf. of the IEEE Eng., Medicine and Biology Soc., Vol. 20, No. 5, pp. 2564, 1998. The authors describe the use of selective anodal blocking in an acute animal model to investigate the advantages of orderly recruitment. The authors write, "At least 3 different methods are known that allow for selective small fiber activation, selective anodal blocking, high frequency stimulation and slowly rising pulses [2]. A project has been started to compare these 3 different methods with respect to performance, stability, required electrical charge per pulse. This abstract reports on the results obtained with only one of these methods, the selective anodal block [3]" (p. 2564).

"Orderly Stimulation of Skeletal Muscle Motor Units with Tripolar Nerve Cuff Electrode," R. Bratta et al., IEEE Transactions on Biomedical Engineering, Vol. 36, No. 8, pp. 836, 1989. The authors describe an electrical nerve stimulation technique, using a single tripolar electrode, that is capable of recruiting motor units according to their size, while allowing simultaneous but independent control of firing rate in the active units.

Kindly amend the first paragraph on page 18 of the specification to read as follows:

Preferably, control unit 50 receives and analyzes signals from sensors 60 located at selected sites in, on, or near the body of the patient. These sensor signals are typically qualitative and/or quantitative measurements of a medical, psychiatric and/or neurological characteristic of a disorder being treated. For example, sensors 60 may comprise electroencephalographic (EEG) apparatus to detect the onset of a seizure, or a user input unit, adapted to receive an indication of a level of discomfort, hunger, or fatigue experienced by the patient. Preferably, the sensor signals are analyzed within control unit 50, which, responsive to the analysis, drives ~~electronic~~ electrode devices 100 to apply current to one or more sites on nerve 40, configured such that application thereof stimulates unidirectional propagation of nerve impulses to treat the specific disorder of the patient.